

{The "rectifying and filtering means" is represented by elements R1/R2 and C1/C2 of Fig. 1 and is described by the 1st paragraph at page 3 of the specification. The first and second DC supply terminals are not expressly labelled in the drawing, but clearly correspond to the terminals connected directly to the anodes of rectifiers R1 and R2. The fact that the DC supply voltage is constant and filtered is clearly described and explained by the 1st paragraph at page 4 of the specification.)

an inductor means having a first winding and a second winding;

{The "inductor means" is represented by element IM of Fig. 1 and is described by the 2nd paragraph at page 3 of the specification. The "first winding" and the "second winding" are identified by reference letters W1/W2 of Fig. 1 and are also identified in the 2nd paragraph at page 3 of the specification.}

a lamp load having a pair of load terminals;

{The "lamp load" is (in one of at least two alternative views) represented by element LD of Fig. 1 and is identified in the second-from-last paragraph at page 3 of the specification. The "load terminals" are not expressly identified in Fig. 1, but are clearly represented by the two conductors connecting into element LD.}

an inverter circuit characterized by: (i) having a pair of AC output terminals connected with the load terminals; (ii) providing a substantially sinusoidal AC output voltage across the AC output terminals; (iii) having a B- terminal connected with the first DC supply terminal by way of the first winding; and (iv) having a B+ terminal connected with the second DC supply terminal by way of the second winding.

{The "inverter circuit" is represented, in Fig. 1, by the total circuitry connected between the pair of terminals identified by reference characters B- and B+ and the pair of terminals represented by reference characters Oa and Ob. It is further described and identified by paragraphs 4-8 at page 3 of the specification. The "AC output terminals" are represented by terminals Oa and Ob of Fig. 1; the "load terminals" are defined as described above; the "substantially sinusoidal AC output voltage" is identified by the waveforms of Fig. 2, particularly waveform (c) thereof, and described by the 5th paragraph at page 5 of the specification; and the "B- terminal" & the "B+ terminal" are identified in Fig. 1 by reference characters B- and B+, respectively.}

The above analysis is representative of the way a skilled artisan would analyze claim 19; which claim 19 is representative of the other claims in instant application.

REMARKS RE REJECTIONS

Examiner rejected claims 1-20 under 35 USC 112, second paragraph, as being indefinite, arguing that "the language presently used to claim the invention has no antecedent basis in the specification".

With reference to INITIAL REMARKS hereinabove, Applicant traverses these rejections for the reason that, although some of the words and/or phrases presently used in the claims are not expressly used in the specification, they are nevertheless of such nature as to be readily understandable by a person having ordinary skill in the particular art pertinent hereto; which person would readily be able to correlate the words and/or phrases used in the claims with corresponding elements and/or sub-circuits of the invention as disclosed by the specification.

Examiner rejected claims 1-20 under the doctrine of obviousnes-type double patenting.

This rejection should be overcome by virtue of the Terminal Disclaimer submitted herewith.

CONCLUDING REMARKS

If, in order to allow the claims, Examiner were to insist that Applicant provide -- in the specification itself -- express correlations between the words and phrases used in the claims and corresponding words and/or parts of the original disclosure, Applicant would certainly be willing to do so.

However, if Examiner were to impose such a requirement, Applicant requests of Examiner to call Applicant on the telephone prior to issuing a Final Rejection, thereby to permit Applicant to suggest ways of providing an expeditious and cost-effective resolution.


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21. An arrangement comprising:

a rectifying and filtering circuit: (i) having a pair of AC power input terminals operable to connect with a pair of AC power line terminals across which exists an ordinary AC power line voltage, and (ii) when the AC power input terminals are indeed so connected, being functional to provide a DC supply voltage between a pair of DC supply terminals, the absolute magnitude of which DC supply voltage being distinctly higher than the peak absolute magnitude of the AC power line voltage; the rectifying and filtering circuit being further characterized in that an electrically conductive path exists between one of the DC supply terminals and one of the AC power input terminals, irrespective of whether or not the AC power input terminals are connected with the AC power line terminals;

a gas discharge lamp having lamp terminals; and

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an inverter-type ballasting circuit having DC input terminals connected with the DC supply terminals and AC output terminals connected with the lamp terminals, thereby to supply a lamp current to the gas discharge lamp; the inverter-type ballasting circuit being further characterized by: (i) including a first transistor having a first transistor terminal connected to a second transistor terminal of a second transistor; (ii) having the two transistors series-connected between a first pair of terminals; and (iii) having a second pair of terminals between which exists a substantially sinusoidal AC voltage of frequency substantially higher than that of the AC power line voltage, one of the second pair of terminals being the first transistor terminal.

22. The arrangement of claim 21 wherein the inverter-type ballasting circuit is additionally characterized in that a unidirectional voltage exists between the first pair of terminals, the average magnitude of which unidirectional voltage is substantially the same as that of the DC supply voltage.

23. The arrangement of claim 21 wherein the inverter-type ballasting circuit is additionally characterized in that the other one of the second pair of terminals is one of the DC supply terminals.

24. The arrangement of claim 21 wherein the rectifying and filtering circuit is additionally characterized in that the magnitude of the DC supply voltage is substantially constant.

25. The arrangement of claim 21 wherein the rectifying and filtering circuit is additionally characterized in that, in order to function as described, it has to be powered from ordinary single-phase AC power line voltage.

26. An arrangement comprising:

a first sub-circuit: (i) having AC power input terminals connected with an ordinary single-phase AC power line voltage, and (ii) being operative to provide a substantially constant-magnitude DC supply voltage between a first and a second DC supply terminal; there being an electrically conductive path between one of the DC supply terminals and one of the AC power input terminals;

a second sub-circuit including an inductor means having a first winding and a second winding;

a lamp load having a pair of load terminals and including a series-combination of a gas discharge lamp and a current-limiting reactance means; and

a third sub-circuit circuit having: (i) a pair of AC output terminals connected with the load terminals and across which is provided an AC output voltage of frequency substantially higher than that of the AC power line voltage; (ii) a B- terminal connected with the first DC supply terminal by way of the first winding; and (iii) a B+ terminal connected with the second DC supply terminal by way of the second winding; a unidirectional voltage existing between the B- terminal and the B+ terminal; a first and a second transistor being series-connected between the B- terminal and the B+ terminal; the two transistors being connected together at a common terminal; the average magnitude of the unidirectional voltage being substantially equal to that of the DC supply voltage.

27. The arrangement of claim 26 wherein the third sub-circuit is additionally characterized in that a substantially sinusoidal AC voltage exists between the common terminal and one of the DC supply terminals.

28. The arrangement of claim 26 wherein the third sub-circuit is additionally characterized in that the first transistor has a first transistor terminal connected to the B- terminal and the second transistor has a second transistor terminal connected to the B+ terminal.

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29. The arrangement of claim 26 wherein the first sub-circuit is additionally characterized in that the absolute magnitude of the DC supply voltage is distinctly higher than the absolute peak magnitude of the AC power line voltage.

30. The arrangement of claim 26 wherein the third sub-circuit is additionally characterized by having a third and a fourth transistor series-connected between the B- terminal and the B+ terminal.

31. An arrangement comprising:

a first sub-circuit: (i) having AC power input terminals connectable with an ordinary single-phase AC power line voltage, and (ii) being operative to provide a substantially constant-magnitude DC supply voltage between a first and a second DC supply terminal;

a second sub-circuit including an inductive reactance;
a gas discharge lamp having a pair of lamp terminals;

and

a third sub-circuit circuit having: (i) a B- terminal and a B+ terminal connected with the first and second DC supply terminals by way of the second sub-circuit; (ii) a unidirectional voltage existing between the B- terminal and the B+ terminal; (iii) the average magnitude of the unidirectional voltage being substantially equal to that of the DC supply voltage; (iv) a first and a second pair of transistors; (v) each transistor pair being series-connected between the B- terminal and the B+ terminal; (vi) the first pair of transistors being connected together at a first common terminal; (vii) the second pair of transistors being connected together at a second common terminal; (viii) a substantially sinusoidal AC voltage existing between the first and second common terminals; and (ix) a fourth sub-circuit connecting the lamp terminals with the first and second common terminals, thereby to power the gas discharge lamp with an alternating current.

32. The arrangement of claim 31 wherein the third sub-circuit is additionally characterized in that a first AC voltage exists between the first common terminal and one of the DC supply terminals; which first AC voltage has a substantially sinusoidal waveform.

33. The arrangement of claim 31 wherein the third sub-circuit is additionally characterized in that it includes a self-oscillating full-bridge inverter.

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34. An arrangement comprising:

a first sub-circuit: (i) having AC power input terminals connectable with an ordinary single-phase AC power line voltage, and (ii) being operative to provide a substantially constant-magnitude DC supply voltage between a negative and a positive DC supply terminal; a first capacitor being connected between the negative DC supply terminal and a reference terminal; a second capacitor being connected between the positive DC supply terminal and the reference terminal;

a second sub-circuit including an inductor means having a first inductor winding and a second inductor winding;

a gas discharge lamp; and

a third sub-circuit having: (i) a B- terminal and a B+ terminal connected with the negative and the positive DC supply terminals by way of the first and the second inductor windings; (ii) a unidirectional voltage existing between the B- terminal and the B+ terminal; (iii) the average magnitude of the unidirectional voltage being substantially equal to that of the DC supply voltage; (iv) a pair of transistors series-connected between the B- terminal and the B+ terminal; (v) the pair of transistors connected together at a joint terminal; (vi) a substantially sinusoidal AC voltage existing between the joint terminal and the reference terminal; and (vii) the gas discharge lamp connected in circuit with the joint terminal and the reference terminal.

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35. The arrangement of claim 34 wherein the third sub-circuit is additionally characterized by including a tuned LC circuit connected with the joint terminal as well as with the reference terminal.

36. The arrangement of claim 34 wherein the third sub-circuit is additionally characterized by constituting an inverter circuit self-oscillating, by way of positive feedback, at the frequency of the substantially sinusoidal AC voltage.

37. The arrangement of claim 34 wherein the first sub-circuit is additionally characterized in that: (i) an electrically conductive path exists between one of the DC supply terminals and one of the AC power input terminals; and (ii) the absolute magnitude of the DC supply voltage is distinctly larger than the peak absolute magnitude of the AC power line voltage.

38. An arrangement comprising:

a first electronic assembly having AC power input terminals operable to connect with an AC power line voltage and, when indeed so connected, to provide a DC supply voltage of substantially constant magnitude between a pair of DC supply terminals; the absolute magnitude of the DC supply voltage being distinctly higher than the absolute peak magnitude of the AC power line voltage;

a gas discharge lamp having lamp terminals; and

a second electronic assembly having: (i) DC input terminals connected with the DC supply terminals; and (ii) AC power output terminals connected with the lamp terminals, thereby being functional to supply the gas discharge lamp with an alternating lamp current of frequency substantially higher than that of the AC power line voltage.

39. The arrangement of claim 38 wherein the first assembly is additionally characterized in that, at least periodically, an electrically conductive path exists between one of the DC supply terminals and one of the AC power input terminals.

40. The arrangement of claim 38 wherein the second assembly is additionally characterized by including a transistor connected with the DC input terminals in such manner as to be subjected to a voltage of peak absolute magnitude in excess of the peak absolute magnitude of the AC power line voltage; the transistor alternating, at a frequency equal to that of the lamp current, between being conductive and being non-conductive.

41. The arrangement of claim 38 wherein the second assembly is additionally characterized by not including a periodically conducting thyristor.

42. The arrangement of claim 38 wherein the second assembly is additionally characterized by drawing a unidirectional current from the DC supply terminals by way of an inductor means.

43. The arrangement of claim 42 wherein the second assembly is yet additionally characterized by including: (i) a pair of alternately conducting transistors, and (ii) a parallel-tuned LC circuit; the alternately conducting transistors being operative to convert the unidirectional current to a alternating current; which alternating current is then being supplied to the parallel-tuned LC circuit.

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